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The present invention provides nucleic acid and polypeptide sequences describing an isoform of the  $\alpha 2\delta-4$  subunit of a voltage gated calcium channel.

- 10 The nucleic acids described herein can be used to produce functional  $\alpha 2\delta-4$  protein. The calcium channel  $\alpha 2\delta-4$  protein may be isolated for the purposes of binding experiments or may be used in cells to form a functional calcium channel complex.

[illegible]